

C L A I M S

Sub B4 1. An external urinary catheter device for the relief of male urinary incontinence, comprising
a contact member which is adapted to be engaged
5 with at least the extreme portion of a penis,

an opening formed in a distal end section of the contact member and positioned substantially opposite the urethral orifice in the position of use,

10 a discharge conduit connected with the opening to provide a sealed urine flow passage extending in a substantial axial direction towards the exterior of the catheter device,

wherein,

15 an aperture is provided in a distal part of the contact member or in the discharge conduit,

a membrane is fastened to the surface surrounding said aperture, the membrane being capable of selectively passing gases but retaining urine,

20 a shield is at least partly protecting the membrane, and

at least one vent is arranged for allowing gases to be in substantially unhindered contact with the external surface of the membrane.

25 2. The external urinary catheter device according to claim 1, wherein the contact member is integrally connected with discharge conduit via the opening formed in the distal end section of the contact member.

3. The external urinary catheter device according to claim 1 ~~or 2~~, wherein the contact member is an inner 30 member arrangeable, in a position of use, between the foreskin and the corona of a penis,

4. The external urinary catheter device according to claim 3, wherein the inner member comprises a shoulder-like ledge at a substantially plane abutment

face of the contact member around and substantially perpendicular to the discharge conduit.

5. The external urinary catheter device according to claim 3, wherein the inner member comprises a plurality of leaves comprised of a film having an adhesive layer on the interior surface thereof to secure an attachment of the device to the corona of a penis.⁵

6. The external urinary catheter device according to claim 1, further comprising an outer holder member for fastening the contact member in the position of use, wherein the outer holder member is formed in a distal end section with an opening for said discharge conduit and arrangeable in said position of use, in a substantially fixed axial position with respect to the discharge conduit for circumferential engagement with the external side of the foreskin.

7. A process for production of an external urinary catheter device for the relief of male urinary incontinence, which comprises the steps of:

providing a catheter part comprising a contact member which is adapted to be engaged with a penis; an opening formed in a distal end section of the contact member and positioned substantially opposite the urethral orifice in the position of use; and a discharge conduit connected with the opening to provide a sealed urine flow passage extending in a substantial axial direction towards the exterior of the catheter device,

30 providing an aperture in a distal part of the contact member or in the discharge conduit,

fastening a membrane to the surface surrounding said aperture, the membrane being capable of selectively passing gases but retaining urine,

35 providing a shield to protect the membrane, and

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arranging at least one vent for allowing gases to be in substantially unhindered contact with the external surface of the membrane.

a 10. The process according to claim 7, wherein the 5 contact member is integrally connected to the discharge conduit via the opening formed in the distal end section of the contact member.

11. The process according to claim 7 or 8 further comprising the step of providing the catheter part 10 with an outer holder member for fastening the contact member in the position of use, wherein the outer holder member is formed in a distal end section with an opening for said discharge conduit and arrangeable in a position of use, in a substantially fixed axial 15 position with respect to the discharge conduit for circumferential engagement with the external side of the foreskin.

10. A process for manufacture of an external urinary catheter device for the relief of male urinary 20 incontinence, comprising the steps

- a) providing a liquid polymer solution or emulsion comprising a polymer and a solvent or a diluent in an amount sufficient for permitting dip forming,
 - 25 b) providing a form having a first part for forming a contact member adapted to engage with a penis, a second part for forming an opening in the distal end section of the contact member and a third part for forming a discharge conduit, the first, second and third part being integrally connected,
 - c) dipping said form in said solution or emulsion,
 - d) removing the form from the solution or emulsion,
 - e) allowing the solvent or the diluent to evaporate,
- 35 and

- f) optionally, repeating the steps c), d), and e) until the device has attained the desired wall-thickness, wherein
- a membrane, capable of selectively passing gases but retaining urine, is arranged at the part of the form for forming the distal part of the contact member or at the third part of the form for forming the discharge conduit prior to dipping according to step c) or during evaporation according to step e).
- 10 11. A device obtainable by the process according to claim 10.
12. A process for manufacture of an external urinary catheter device for the relief of male urinary incontinence, comprising the steps of
- 15 providing a mould comprising a matrix and a core for plastic injection moulding, wherein the cavity defined by the matrix and the core comprises a first part for forming a contact member adapted to engage with a penis, a second part for forming an opening in 20 the distal end section of the contact member and a third part for forming a discharge conduit, the first, second and third part being integrally connected,
- injecting a liquid plastic material into the cavity of the mould,
- 25 solidification of the liquid plastic material, and
- recovering the moulded device from the mould, wherein a membrane capable of selectively passing gases but retaining urine is arranged at the part of 30 the cavity for forming the distal part of the contact member or the third part of the cavity for forming the discharge conduit.
13. A device obtainable by the process according to claim 12.

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14. A kit for relief of male urinary incontinence comprising

a
an external urinary catheter device according to
~~any of the claims 1 to 6, 11, or 13,~~

5 a bag for collection of urine discharged from the catheter device, and

a hose member connecting the catheter device and the bag

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15. A use of the external urinary catheter device
10 according to any of the claims 1 to 6, 11, or 13, or
the kit according to claim 14 for relief of male
urinary incontinence.

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